

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB 03/02629

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F16L33/24 F16L33/01

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	DE 12 63 420 B (AEROQUIP AG) 14 March 1968 (1968-03-14) column 3, line 40 - line 68  column 4, line 15 - line 44	1-12, 15, 16, 20, 28 13, 14, 17-19, 21-27
X A	DE 12 44 500 B (UMBERTO QUERCI) 13 July 1967 (1967-07-13)  column 1, line 1 - line 16 column 3, line 32 - column 4, line 28; figures	1, 2, 4-8, 11, 12, 16-18, 20, 23, 24, 28  3, 9, 10, 13, 14, 19, 21, 25-27
	--- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

8 September 2003

Date of mailing of the international search report

07/10/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Cross, A

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB 03/02629

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 499 670 A (WOODY CHARLES M DE) 10 March 1970 (1970-03-10)	1,4,5,7, 8,11,20, 21, 25-27, 33-37
A	column 2, line 33 - line 36 column 2, line 60 - line 62; figures	22,38,39
X	DE 196 30 577 A (SCHNEEGANS GMBH) 12 February 1998 (1998-02-12) column 1, line 31 - line 35 column 3, line 8 - line 26; figure 3	1,2,4-6, 19-21,28
A	US 4 893 848 A (MELCHER EDWARD L) 16 January 1990 (1990-01-16) column 5, line 17 -column 42 column 6, line 54 -column 7, line 5; figures 2-4,18,19	15-18, 29,30

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB 03/02629

### Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 31, 32, 40  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 31, 32, 40

The subject-matter of claims 31, 32 and 40 is defined only by reference to the description and drawings, thus these claims do not meet the requirements of Rule 6.2(a) PCT.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No  
PCT/GB 03/02629

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 1263420	B	14-03-1968	NONE	
DE 1244500	B	13-07-1967	NONE	
US 3499670	A	10-03-1970	NONE	
DE 19630577	A	12-02-1998	DE 19630577 A1	12-02-1998
US 4893848	A	16-01-1990	NONE	